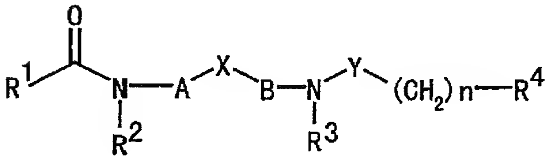
WHAT IS CLAIMED IS:

1. A heterocyclic compound represented by the following general formula (I) and a pharmaceutically acceptable salt thereof:



(I)

wherein R^1 is a cycloalkyl group, a cycloalkyl group having a substituent(s), a cycloalkenyl group or a cycloalkenyl group having a substituent(s); each R^2 and R^3 is a hydrogen atom or an alkyl group; R^4 is an alkyl group, an alkyl group having a substituent(s), an alkenyl group, an alkenyl group having a substituent(s), a cycloalkyl group, a cycloalkyl group having a substituent(s), a cycloalkenyl group, a cycloalkenyl group having a substituent(s), an aryl group, an aryl group having a substituent(s), an aromatic heterocyclic group having at least one hetero-atom within a ring or an aromatic heterocyclic group having a substituent(s) and at least one hetero-atom within a ring; A is a heterocyclic ring or a heterocyclic ring having a substituent(s); B is an aromatic ring, an aromatic ring having a substituent(s), a heterocyclic ring or a heterocyclic ring having a substituent(s); n is an integer selected from 0 to 6; -Y- is an interatomic bond, -CO-, -CO-O-, -CO-NR^5-, -CS-NR^6-, -SO-, -SO_2-, wherein each of R^5 and R^6 respectively is a hydrogen atom or an alkyl group; wherein -X- is an interatomic bond, -O-, -O-CHR^7-, -CHR^8-O-, -O-CO-, -CO-O-, -O-CS-, -CS-O-, -S-, -SO-, -SO_2-, -S-CHR^9-, -CHR^{10}-S-, -S-CO-, -CO-S-, -S-CS-, -CS-S-, -SO_2-NR^{11}-, -NR^{12}-SO_2-, -NR^{13}-, -NR^{14}-CHR^{15}-, -CHR^{16}-NR^{17}-,

-CO-, -C(=NOR^{18})-, -C(=CHR^{19})-,-CO-CHR^{20}-, -CHR^{21}-CO-, -CO-NR^{22}-, -NR^{23}-CO-, -CR^{24}R^{25}-, -CHR^{26}-CHR^{27}-, -CR^{28}=CR^{29}-, -O-CHR^{30}-CHR^{31}-, wherein each of R^{7}, R^{8}, R^{9}, R^{10}, R^{15}, R^{16}, R^{20}, R^{21}, R^{24}, R^{28}, R^{29}, R^{30} and R^{31} respectively is either of a hydrogen atom or an alkyl group; each of R^{11}, R^{12}, R^{13}, R^{14}, R^{17}, R^{18}, R^{19}, R^{22} and R^{23} respectively is either of a hydrogen atom, an alkyl group or an acyl group; each of R^{26} and R^{27} respectively is either of a hydrogen atom, a hydroxy group or an alkyl group; and R^{25} is a hydrogen atom, a hydroxy group, an alkyl group, an alkyl group having a substituent(s), a mercapto group, an alkoxy group, an alkylthio group, an acyloxy group, an amino group, an alkylamino group, an amino group substituted with an amino protective group, a carboxyl group, an alkoxycarbonyl group, an aminocarbonyl group, or a cyano group.

2. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 1, wherein R^{1} in the general formula (I) is a cycloalkyl group having a substituent(s).

3. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 1, wherein R^{1} of the general formula (I) is a cyclopropyl group having a substituent(s).

4. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 1, wherein R^{1} of the general formula (I) is either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-dibromocyclopropyl group.

5. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 4, wherein, in the general formula (I), A is either of an aromatic heterocyclic ring or an aromatic heterocyclic ring having a substituent(s), and B is either of an aromatic ring, an aromatic ring having a substituent(s), an aromatic heterocyclic ring or an aromatic heterocyclic ring having a substituent(s).

6. The heterocyclic compound and pharmaceutically acceptable salt thereof

according to claim 5, wherein –Y- of the general formula (I) is an interatomic bond, –CO-, -CONR^5-, CSNR^6- or –SO$_2$-, wherein each of R^5 and R^6 respectively is a hydrogen atom or an alkyl group.

7. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 1, wherein, in the general formula (I), –X- is an interatomic bond, –O-, -O-CHR^7-, -CHR^8-O-, -S-, -NR^{13}-, -CR^{24}R^{25}- or –O-CHR^{30}-CHR^{31}-, wherein each of R^7, R^8, R^{24}, R^{30} and R^{31} respectively is a hydrogen atom or an alkyl group; R^{13} is either of a hydrogen atom, an alkyl group or an acyl group; and R^{25} is a hydrogen atom, a hydroxy group, an alkyl group, an alkyl group having a substituent(s), a mercapto group, an alkoxy group, an alkylthio group, an acyloxy group, an amino group, an alkylamino group, an amino group substituted with an amino protective group, a carboxyl group, an alkoxycarbonyl group, an aminocarbonyl group, or a cyano group.

8. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 7, wherein, in the general formula (I), A is either of a pyridine, a pyridazine, a pyrimidine, a pyridine having a substituent(s), a pyridazine having a substituent(s) or a pyrimidine having a substituent(s); and B is a benzene ring or a benzene ring having a substituent(s).

9. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 8, wherein R^1 and R^4 of the general formula (I) may be the same or different from each other and each may be either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-diburomocyclopropyl group; –Y- is –CO-; and n is 0.

10. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 8, wherein R^1 of the general formula (I) is either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-dibromocyclopropyl group; R^4 is an aryl group or

an aryl group having a substituent(s); –Y- is –CO-; and n is an integer selected from 1 to 3.

11. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 8, wherein R^1 of the general formula (I) is either of a 2,2-dimethylcyclopropyl group, a 2,2-dichlorocyclopropyl group, a 2,2-difluorocyclopropyl group or a 2,2-dibromocyclopropyl group; R^4 is an aryl group or an aryl group having a substituent(s); -Y- is an interatomic bond; and n is an integer selected from 2 to 4.

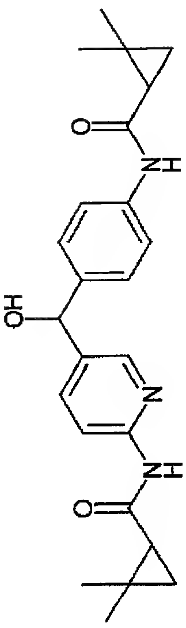
12. The heterocyclic compound and pharmaceutically acceptable salt thereof according to any one of claims 3 to 11, wherein when R^1 of the general formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

13. The heterocyclic compound and pharmaceutically acceptable salt thereof according to any one of claims 3 to 11, wherein when R^1 of the general formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

14. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 9, wherein when each of R^1 and R^4 of the general formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is S.

15. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 9, wherein when each of R^1 and R^4 of the general formula (I) is a cyclopropyl group having a substituent(s), an absolute configuration of the carbon atom on the cyclopropyl group adjacent to the carbonyl group is R.

16. A heterocyclic compound and a pharmaceutically acceptable salt thereof represented by the following formulas: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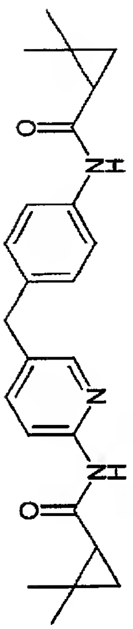
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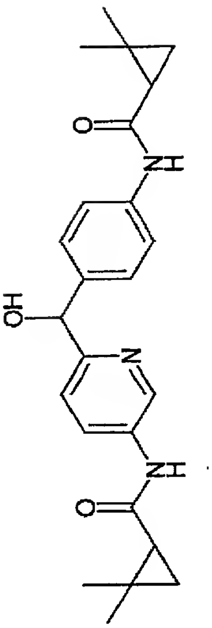
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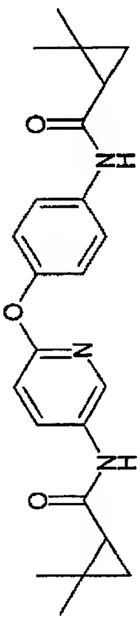
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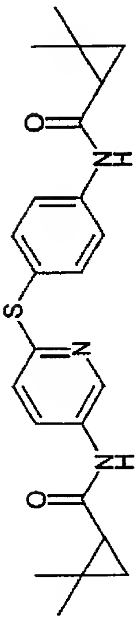
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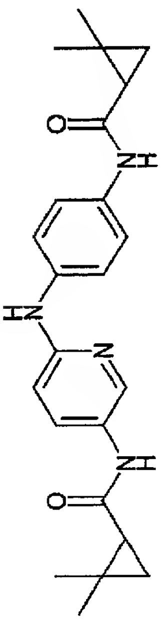
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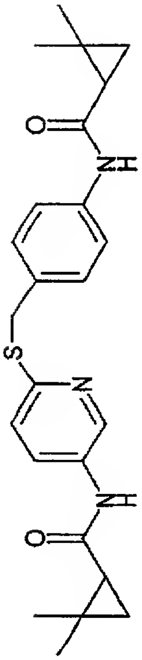
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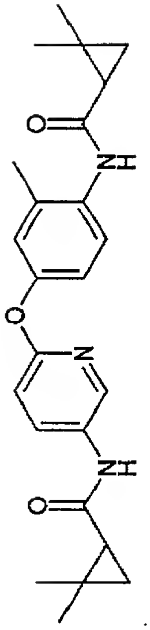
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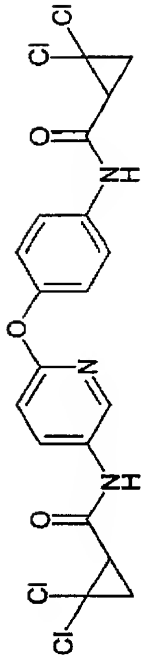
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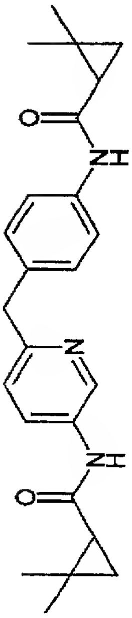
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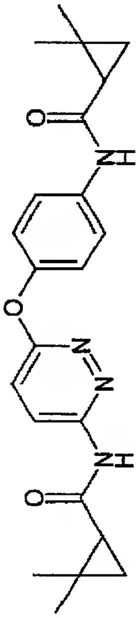
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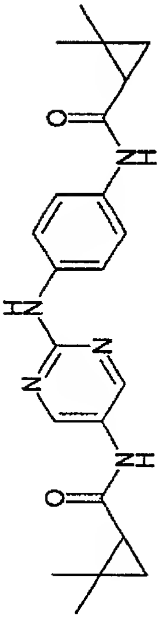
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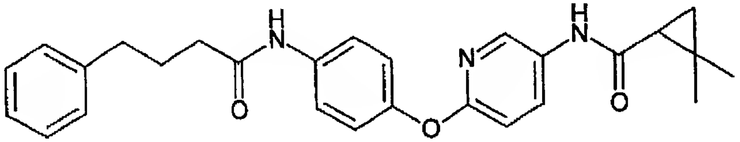

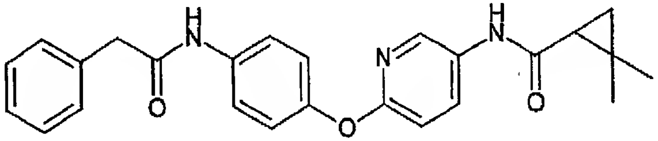

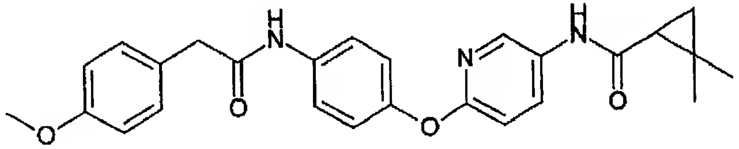

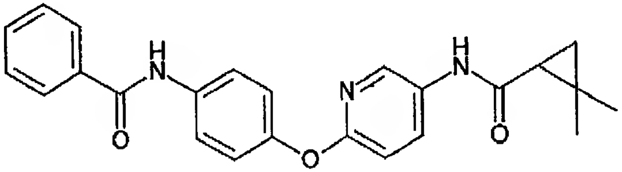

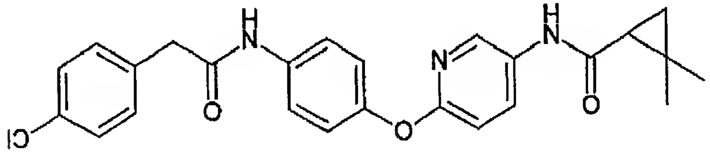

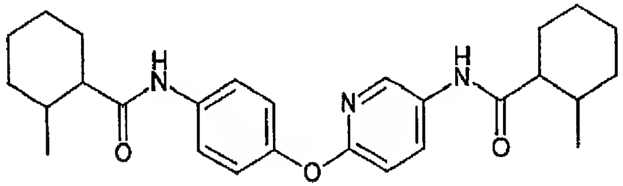

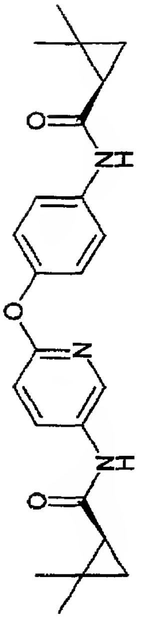

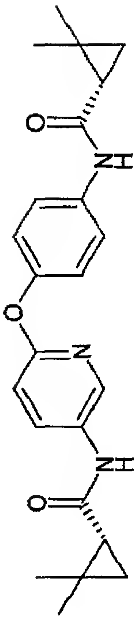

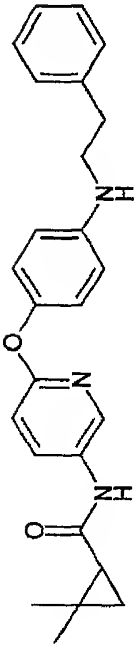

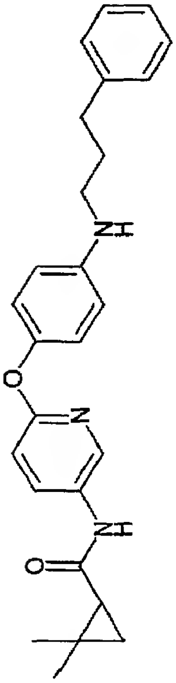

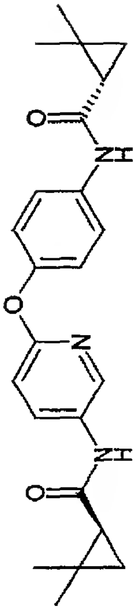

17. The heterocyclic compound and pharmaceutically acceptable salt thereof according to claim 1, wherein B is a phenylene group; R^1 is a cycloalkyl group

having a substituent(s) or a cycloalkenyl group having a substituent(s); R^2 is a hydrogen atom or an alkyl group; R^3 is a hydrogen atom or an alkyl group; R^4 is an alkyl group which may be substituted, a cycloalkyl group which may be substituted, a cycloalkenyl group which may be substituted, an aryl group which may be substituted or an aromatic heterocyclic ring group which may be substituted and also has one or more hetero atoms; -X- is –O-, -O-CHR^7-, -CHR^8-O-, -O-CO-, -CO-O-, -O-CS-, -CS-O-, -S-, -SO-, -SO_2-, -S-CHR^9-, -CHR^{10}-S-, -S-CO-, -CO-S-, -S-CS-, -CS-S-, -SO_2-NR^{11}-, -NR^{12}-SO_2-, -NR^{13}-, -NR^{14}-CHR^{15}-, -CHR^{16}-NR^{17}-, -CO-, -C(=NOR^{18})-, -C(=CHR^{19})-, -CO-CHR^{20}-, -CHR^{21}-CO-, -CO-NR^{22}-, -NR^{23}-CO-, -C$R^{24}R^{25}$-, -CHR^{26}-CHR^{27}- or -CR^{28}=CR^{29}, wherein each of R^7, R^8, R^9, R^{10}, R^{20}, R^{21}, R^{24}, R^{28} and R^{29} is either of a hydrogen atom or an alkyl group; each of R^{11}, R^{12}, R^{13}, R^{14}, R^{17}, R^{18}, R^{19}, R^{22} and R^{23} is either of a hydrogen atom, an alkyl group or an acyl group; each of R^{15} and R^{16} is a hydrogen atom or an alkyl group; each of R^{26} and R^{27} is either of a hydrogen atom, a hydroxy group or an alkyl group; and R^{25} is a hydrogen atom, a hydroxy group, an alkyl group which may be substituted, a mercapto group, an alkoxy group, an alkylthio group, an acyloxy group, an amino group which may be substituted with an alkyl group or an amino protective group, a carboxyl group, an alkoxycarbonyl group, an aminocarbonyl group, or a cyano group; wherein n is an integer selected from 0 to 6; Y is –C(O)-; and A is the aromatic heterocyclic ring including at least one or more nitrogen atom.

18. A pharmaceutical composition comprising as an active ingredient a heterocyclic compound or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17.

19. An AP-1 activation inhibitor or a NF-kappaB activation inhibitor comprising as an active ingredient a heterocyclic compound or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17.

20. An inflammatory cytokine production inhibitor, a production inhibitor

for matrix metalloprotease or an inflammatory cell adhesion factor expression inhibitor comprising as an active ingredient a heterocyclic compound or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17.